

## **5CRR 1001-08 Regulation 6 Standards of Performance for New Stationary sources**

### IV. STANDARDS OF PERFORMANCE FOR NEW SOURCES OF SULFUR DIOXIDE

#### A. Applicability and Designation of Affected Facilities

The affected facilities to which the provisions of this Section apply are: natural gas desulfurization, petroleum refineries, production of oil from shale, refining of oil from shale, and any other new source of SO<sub>2</sub> specifically covered by other sections of this regulation.

#### B. Definitions

As used in this Section, all terms not defined herein shall have the meaning given them in the Common Provisions Regulation and in Section I. of this regulation.

#### C. Standards for Sulfur Dioxide

1. On and after the date on which the performance test required to be conducted by Section I. has been completed, no owner or operator subject to the provisions of this Section shall discharge or cause the discharge into the ambient air from natural gas desulfurization facilities, sulfur dioxide in excess of:

a. 2.0 lbs. SO<sub>2</sub>/1000 cubic feet of delivered natural gas, for sources emitting less than three (3) tons per day of SO<sub>2</sub>.

b. 0.8 lbs. SO<sub>2</sub>/1000 cubic feet of delivered natural gas, for sources emitting three or more tons per day of SO<sub>2</sub>.

2. On and after the date on which the required performance test has been completed, no owner or operator subject to the provisions of this Section shall discharge or cause the discharge into the ambient air from any petroleum refining facility, sulfur dioxide in excess of:

a. 0.3 lbs. sulfur dioxide for the sum of all SO<sub>2</sub> emissions from a given refining facility, per barrel of oil processed.

3. On and after the date on which the required performance test has been completed, no owner or operator subject to the provisions of this Section shall discharge or cause the discharge into the ambient air from the production of oil from shale, sulfur dioxide in excess of:

a. Facilities producing 1,000 or more barrels of oil per day:

(i) Standard. Shale oil production facilities shall employ Best Available Control Technology (BACT) (as determined by the Division after consultation with the Commission), but as provided in Section IV.C.3.a.(ii). In no event shall the total sulfur dioxide emissions from a production facility exceed 0.30 lbs SO<sub>2</sub> per barrel of oil produced.

(ii) Exemption. For shale oil production facilities which will employ combined modified in-situ retorting and above ground retorting and which meet all the following criteria, the standard shall be BACT (as determined by the Division after consultation with the Commission) with total daily SO<sub>2</sub> emissions not to exceed the emissions which would result from operation of the facility at design capacity (expressed in barrels of oil produced per stream day) multiplied by 0.3 lbs. SO<sub>2</sub> per barrel:

(A) The applicant must demonstrate that it intends and has the capability to construct and operate a shale oil production facility with the design capacity claimed in its permit application. If at any time the Division determines that the permitted facility is not constructed or does not have the capability to operate (except as is prohibited by the maximum emission limitation provided for in this exemption) to the design capacity stated in the permit application, the maximum allowable emissions shall be recalculated to a limitation equal to actual production capacity multiplied by 0.30 lbs. SO<sub>2</sub> per barrel; and the emission permits for such facility shall be amended to reflect such newly calculated emission limitation.

(B) Emission permit applications shall indicate whether the applicant is applying for exemption from the 0.3 lbs SO<sub>2</sub> per barrel emission limitation and the anticipated date of commencement of construction for the source of SO<sub>2</sub> emissions (i.e. each emission point or group of emission points at a shale oil production facility requiring a separate permit). With respect to any source of SO<sub>2</sub> emissions the construction of which is to be commenced more than two years after issuance of initial approval of the emission permit, the Division shall by permit conditions state a date certain by which the applicant shall submit data to the Division for review of the determination of BACT for such source. Failure of the applicant to meet the permit conditions requiring submittal of data shall be grounds for revocation in the initially approved permit. Nothing herein shall, however, be construed as prohibiting an applicant from making a timely application for an amendment to the terms and

conditions of an emission permit. The determination of BACT shall be reviewed by the Division and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of such source, unless this time period is waived or extended by mutual agreement of the Division and the applicant. At such time, the owner or operator of the stationary source may be required to demonstrate the adequacy of any previous determination of BACT for the source. Determination of the date of commencement of construction shall be on a source-by-source basis and construction of an individual source shall not be deemed to have commenced by reason of (1) commencement of construction of the overall shale oil production facility; (2) commencement of construction of components of the facility which will be used in common with more than one source (e.g., mine shafts); or (3) commencement of construction of components of the source which in no way limit what control technology may be applied (e.g., pouring of concrete pads well in advance of other construction). Acceptance of a permit so conditioned shall be deemed as an agreement that the applicant accepts the possibility that BACT might be revised for the source.

(C) Only applicants for sources locating in SO<sub>2</sub> attainment areas are eligible for this exemption. The exemption shall not be granted to any source locating in an SO<sub>2</sub> non-attainment area or unclassifiable area, nor to any source where the granting of such exemption would cause or contribute to a violation of the National Ambient Air Quality Standards or class increments for SO<sub>2</sub> as they exist on the effective date of this provision (March 30, 1981).

(D) The exemption is only from the requirement not to exceed the SO<sub>2</sub> emission limitation of 0.30 lbs./bbl. and in no way exempts any shale oil production facility from employing BACT, not violating the National Ambient Air Quality Standards (including class increments) for SO<sub>2</sub>, or otherwise meeting the applicable statutory and regulatory requirements for issuance of an emission permit.

(E) The above-ground retorting operations shall be commenced at the earliest practicable time.

(F) The exemption provided for herein shall be applicable only to the first eighteen (18) tons of SO<sub>2</sub> emissions from a shale oil production facility per day. Any SO<sub>2</sub> emissions in excess of eighteen (18) tons per day shall be subject to the provisions of Section IV.C.3.a.(i)

(G) For the purpose of this section:

(1) "design capacity" shall mean maximum production capability (expressed in barrels per day) on a stream day basis (24-hour operation period) of the applicant's proposed facility when fully constructed and operated in accordance with prudent utilization of the site and the oil shale resource, and taking into consideration the rated capacities of individual facility components, designed retorting efficiency of modified in-situ retorts, and other factors affecting production capability deemed appropriate by the Division. Even though the facility may be constructed in phases, its design capacity shall be deemed to be the total design capacity of all sources for which emission permits have been granted.

(2) "actual production capacity" shall mean the maximum production capability on a stream day basis of the permitted facility operated in accordance with prudent utilization of the site and oil shale resource and taking into consideration actual demonstrated capacities (including individual facility components), demonstrated modified in-situ retorting efficiency, and other factors affecting production capability deemed appropriate by the Division.

(3) "shale oil production facilities which employ in-situ retorting and surface retorting" shall mean shale oil production facilities which utilize both in-situ retorting and surface retorting to recover oil from oil shale with at least 20% of the shale processed being processed by surface retorting.

(H) Unless renewed by the Commission, the exemption provided for in Section IV.C.3.a.(ii) shall expire on July 1, 1992.

b. Facilities producing less than 1,000 barrels of oil per day:

There shall be no process emission standard for purposes of this regulation for sources processing less than 1000 barrels per day.

#### D. Test Methods and Procedures

The reference methods contained in Appendix A of this regulation shall be used to determine compliance with the standards prescribed in subsection C. as follows:

1. Method 1 for selecting sample site and velocity traverses.

2. Method 2 for velocity and volumetric flowrate.
3. Method 3 for gas analysis to be used when applying Method 6,  
and
4. Method 6 for concentration of SO<sub>2</sub>.

WRITTEN STATEMENTS OF THE BASIS AND PURPOSE OF THIS REGULATION AND REVISIONS HAVE BEEN PREPARED AND ADOPTED BY THE COMMISSION. THESE WRITTEN STATEMENTS HAVE BEEN INCORPORATED IN THIS REGULATION BY REFERENCE AND IN ACCORD WITH C.R.S. 1973, 24-4-103 AS AMENDED.